

Performing Treeage

by Joe Boggs, Jim Chatfield and Erik Draper
Ohio State University Extension

This article is reprinted with permission from American Nurseryman, June 1, 2001. Though it is directed to landscape management companies, it is very applicable to community forestry programs.—Editor

Some view cultivating plants as a relaxing and rewarding experience. They revel in learning how to nurture plants that produce beautiful landscapes. These shepherds of the soil may be heard whispering, "I grew that spruce!" with a mixture of pride and awe.

Others see themselves as defenders of the soil. They constantly battle with the enemy—leaf-munching beetles or leaf-spotting fungi—over control of all plants. At the first sign of a breach, the defenders shout with a mixture of anxiety and defeat, "What's attacking my spruces?"

In the end, it's a matter of perspective. Insects have been around for more than 350 million years. These tough little creatures have outlasted even the dinosaurs. We will never eliminate them. Oddly enough, the supposed battles seldom need to be waged. That's because most insects are not pests.

It is estimated that of the nearly 90,000 described species of insects found in North America north of Mexico, only 6,700 are pests—7.4 percent. Of this number, only 700 species frequently or occasionally cause significant damage—0.8 percent. The remaining 6,000 insects—6.6 percent—rarely cause significant damage. (These numbers include all insects, not just those that feed on trees and shrubs.) Likewise, mites and disease-causing microorganisms, such as fungi and bacteria, probably conform to a similar ratio of destructive vs. nondestructive agents.

Clearly, the perception that most insects are pests is inaccurate. More importantly, the judgment that all plant problems are equal and should be treated the same is also false. As hard as it may be to believe, very few pests kill plants. Otherwise, how would the

plants live? Still, some insects, mites and disease-causing organisms do cause serious plant damage. For this reason, it's important we sort the damage-causing insects and diseases from the others.

Medical triage (pronounced "tre azh") was developed in the early 1800s by the French as a method to sort and prioritize the care of soldiers injured in battle. They discovered that a first-come, first-served method of dispensing medical attention to battlefield casualties sometimes left the most seriously injured to die without medical care, while the least seriously injured received excessive attention. Anyone who has watched the television shows "M*A*S*H" and "ER" has observed triage being accurately performed on hapless actors with sort-term contracts.

The least complicated triage system usually sorts patients into three categories:

Category 1: The patient will survive regardless of intervention efforts.

Category 2: The patient will not survive with the application of the best available intervention efforts.

Category 3: The patient can survive with the application of intervention efforts. Naturally, the greatest concentration of resources is properly expended on these patients.

Triage uses this decision-making process to focus critical resources. We believe this same process can benefit landscape managers. When directed toward plant problems, however, triage becomes "treeage."

Treeage uses the same sorting categories as the medical variety, except "thrive" is added to "survive" in the predicted outcomes to reflect the need to practice plant health care. Each plant problem is examined, evaluated and placed into one category:

Category 1: The plant will survive and thrive without intervention efforts.

Category 2: The plant will not thrive or survive with the application of the best available intervention efforts.



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Community Profile

Tree City USA – 21 years
 Growth Award – 3 years
 Population – 24,700
 Street Trees – About 7,000
 Street Miles – 150
 Number of Parks – 19
 Park Acreage – 475
 Primary Industries:
 Sentry Insurance,
 UW–Stevens Point,
 Stora Enso paper,
 Donaldson
 Company Inc.
 Filters

Program Profile

Staff: Todd Ernster,
 City Forester; Paul
 Ziemann, City
 Arborist; Rich Janis,
 Maintenance; five
 seasonal employees
 Tree Board: Consists
 of members from the
 park board
 Forestry Budget –
 \$191,784

Forestry Equipment

4 pick-up trucks
 1 chipper truck
 1 stump grinder
 2 water tankers
 1 sprayer
 1 tree spade
 1 chipper

Community Profile:

City of Stevens Point

by Don Kissinger
 DNR West Central Region

Stevens Point can trace its beginnings to 1839 when one George Stevens used this “point,” or peninsula of the Wisconsin River to launch his supply canoes for the journey north to Big Bull Falls (Wausau) where he later established a saw mill. The area became an incorporated city in 1858 and flourished as a strategic supply point for the growing lumber industry, where it became known as the “Gateway to the Pinerias.” Today it still flourishes due in large part to the presence of Sentry Insurance world headquarters, the paper and publishing industry and the University of Wisconsin–Stevens Point (UWSP).



Photo by Todd Ernster, City of Stevens Point

The community forestry program also has a long history, dating back 30 years with the hiring of City Forester Mickey Simmons, who served for 28 years and initiated many of the good works that are still in existence today. Stevens Point was one of only five Wisconsin communities to be a Tree City USA in the program’s inaugural year of 1976, receiving that award 21 times since, along with three Growth Awards. For the past two years, Todd Ernster has been city forester, having served as city arborist in Stevens Point for 12 years prior.

Ernster’s day-to-day experience made for a smooth transition and even allowed for some exciting new projects. One of the more far reaching was the creation of a permitting system and specifications for contractors and city crews when doing construction near city-owned property and trees. This permitting system, which adopted many of its sections from the city of Milwaukee, has helped to keep all affected city departments in the loop, creating a healthier environment around city trees. Another recent development has been the introduction of a new computer software program to help update the tree inventory and produce a current management plan.

In addition to street and park trees, the forestry department is responsible for managing more than 40 flower beds throughout the city with the help of the Portage County Master Gardeners, maintaining Goerke Football Field, where the university, two high schools and a middle school play, maintaining the landscaping around 14 city parking lots and answering residents’ tree and shrub questions.

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Address inquiries to Dick Rideout, Wisconsin Department of Natural Resources, PO Box 7921, Madison, WI 53707

Editor: Dick Rideout

Contributors: Cindy Casey, Don Kissinger, Tracy Salisbury, Kim Sebastian, John Van Ells

Layout: Georgine Price



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Midstate/Pittsville – Two Problems, One Solution

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*by Don Kissinger
DNR West Central Region*

The city of Pittsville has been very active in pursuing tree planting grants from Alliant Energy to plant nearly 300 low-growing trees for their Arbor Day events over the seven years they have been a Tree City USA. While doing a great job planting and watering trees with community volunteers, they had fallen well short of training these new trees as well as maintaining the existing boulevard, cemetery or park trees. As Public Works Director Jim Rueth lamented, “Whenever we would begin pruning trees, the city crew would get pulled away on a more urgent project.”

Now, fast forward to Mid-State Technical College in Wisconsin Rapids where they are in year two of their Urban Forestry Technician program. One of the courses offered is “Urban Tree Maintenance” in which students are taught the skills of landscape tree planting, establishment, pruning and removal. The emphasis of this class is on learning the concepts in the classroom and lab, and then practicing them on real trees. The problem is there are only a limited number of trees on the campus for students to test their skills.

Back to Pittsville. Mayor Dave Lyons, a staunch supporter of Arbor Day tree planting, realized he needed a creative solution to get the city’s trees pruned. Appropriating funds for contract pruning was not an option at this time, so he connected with Ron Zillmer, Mid-State’s lead instructor for the urban forestry technician program, and offered up Pittsville to be their outdoor training ground.

To assure the community would receive quality tree care, Ron first taught tree structure concepts in the classroom so students would understand where appropriate cuts should be made. This science was followed by why pruning should occur, how much material and which limbs should be removed. Students then spent several hours in the lab cutting limbs held by a vice. From the lab they moved to the naturally wooded area of campus and last to Pittsville where they worked for six sessions beginning in the two cemeteries, then the city park and finally the street trees as well as some residential properties. Students who had prior classes in tree climbing using rope and saddle were allowed to use that skill to perform whole tree pruning while others crafted their art from the ground with hand and pole loppers and saws.

Initially Ron emphasized making the correct cut, along with taking or leaving the correct limb, but as lab classes progressed the students were pushed towards a more production oriented approach they would need in their future jobs. This created nearly 100 loads of brush that the city crew picked up. Not only did this help the students, but the city crew also learned about pruning techniques in the process.

It is definitely a win-win situation that will continue into the future as Ron estimates that Pittsville’s trees could easily be put on a three-year pruning cycle. When the students finish the first cycle of pruning, it is hoped the city will take on the maintenance of a larger number of trees using their own staff or appropriate funds for contract pruning.

As for future Urban Tree Maintenance classes, there is currently a list of other communities to receive needed pruning while allowing our future arborists to sharpen their skills. If you are a central Wisconsin community within 45 minutes of Wisconsin Rapids and are interested in a similar project, contact Ron Zillmer at 715-422-5586 or e-mail at rzillmer@midstate.tec.wi.us. 🍁

Students first receive instruction ...



... then begin pruning from the ground.



More advanced students prune with rope and saddle.



*Photos by Don
Kissinger, WDNR*

Performing Treeage

continued from page 1

Category 3: The plant can survive and thrive if intervention efforts are focused on increasing plant health through pest and disease management practices.

The vast majority of insect and mite galls are usually Category 1 problems. For example, more than 800 types of insect galls can occur on *Quercus*, but the majority cause little or no harm to the tree. Tiny wasps cause most. Leaf galls, such as the hedgehog gall and oak woolly leaf gall, produce striking growths but cause insignificant disruption to the tree's photosynthesis system and carbohydrate processing. The same is true of most galls produced by eriophyid mites, such as *Vasates quadripedes* (maple bladergall mite). It produces a bright red, globose, pouch-like bladdergall on the upper leaf surfaces of *Acer rubrum* and *A. saccharinum*.

Other Category 1 problems with a dramatic appearance prove benign to plant health, such as tar spots. As Wayne A. Sinclair, Howard H. Lyon and Warren T. Johnson note in *Diseases of Trees and Shrubs*, "Tar spots are among the most showy and least damaging foliar diseases." In summer, the fungus produces shiny, 0.25-inch- to 1-inch-diameter black spots on upper leaf surfaces. The tar-like appearance of the spots gives the disease its name.

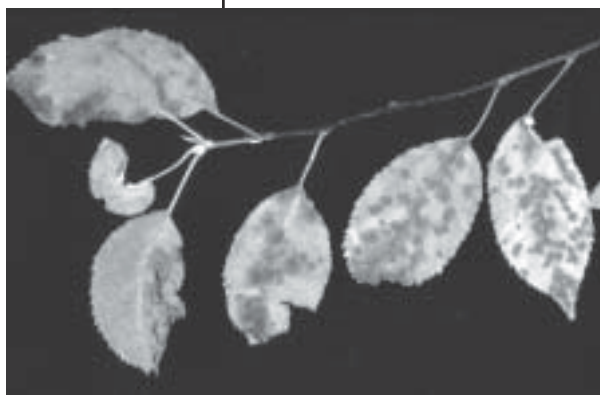


Photo by Dick Rideout, WDNR

Although apple scab is a disease that can be treated, some trees with the disease may become completely defoliated.

Unlike Category 1 problems, Category 2 problems such as Dutch elm disease have a profoundly adverse impact on the health of their hosts. *Hylurgopinus rufipes* (native elm bark beetle) and *Scolytus multistriatus* (European elm bark beetle) are capable

of vectoring the fungi *Ophiostoma* spp. These disease-causing fungi cause xylem vessels to become incapable of transporting water. Though there are some intensive treatment options, *Ulmus americana* will usually die regardless of attempts to control or remove the infected parts, especially if treatment is not initiated in the very early stage of infection.

Fortunately, plants with Category 3 problems can be treated successfully. Apple scab on *Malus* is a good example. If left alone, susceptible trees may become completely defoliated during years when fungal infection is intense due to moist spring and early summer weather conditions. Successive years of heavy defoliation may weaken trees and cause significant aesthetic problems. Multiple, properly timed applications of fungicides, however, may

suppress the problem. A better, long-term solution would be to select disease-resistant cultivars.

Indeed, the availability of pest- and disease-resistant cultivars illustrates how pest and disease management solutions can be used to shift a problem from Category 3 into Category 1, reducing it to a non-problem. Apple scab is only a Category 1 problem on disease resistant cultivars of *Malus*.

Unfortunately, not all Category 3 problems can be solved this way. One Category 3 insect problem is *Chionaspis pinifoliae* (pine needle scale). This "hard scale" prefers *Pinus*, especially *P. mugo*, but it can also be found on *Picea*, *Abies* and *Pseudotsuga menziesii*. Heavy infestations remove a considerable amount of plant juice, resulting in yellowed needles, stunting of growth, and twig and branch dieback. Large numbers of this white-colored scale also cause the foliage to appear frosted or silvery from a distance.

Pine needle scale has a hard, waxy covering, which is impervious to insecticides. It spends most of its life cycle in an immobile condition, firmly attached to needles or to the bark of twigs and branches. However, twice a year, in late spring and mid-summer, the insect produces mobile, rusty red crawlers, which are first instar nymphs. These are susceptible to a wide range of insecticides labeled for use on pines.

Treeage is not intended to compete with IPM or replace it. Rather, the practice should be viewed as a companion to IPM programs for landscape plant problems. Indeed, in the same way that triage is used to reduce the number of casualties that are advanced to the next stage of treatment, treeage should be used before developing IPM programs to define and limit the number of plant problems requiring further attention.

Treeage is a decision-making tool for selecting the best course of action. But it can assist horticulture professionals in other ways, too.

Additional Applications of Treeage.

Because treeage provides a framework to steer pest and disease management decisions in a logical, commonsense direction, the concept can be used to educate our clientele. They need to know when we can do something and when we can't. Treeage's connection to a well-known medical process provides a decision-making model that will be familiar to many clients.

For instance, landscape managers occasionally need to communicate the despairing prognosis that nothing can be done to help an ailing tree. As hardhearted as it may seem, the reality is an *Acer* in the final stages of the fungal disease *Verticillium* wilt cannot be saved any more than an emergency room patient whose organs have shut down.

There remain other practical ways to link treeage to the real world business of horticulture, especially aesthetics. Disease and pests are in the eye of the beholder. For example, *Hyphantria cunea* (fall webworm) envelops leaves in large, silken nests, but on most landscape trees, the insect's late season depredation causes little or no harm to the overall health of a tree. The insect's nests, which look like an early Halloween decoration, are merely a Category 1 pest problem based on plant health care. However, if these nests should shroud the branches of a specimen like weeping cherry tree, the customer will certainly want something to be done based on aesthetics.

Another example along this line would be powdery mildew of *Syringa*. As anyone who has grown common lilac knows, powdery mildew appears almost every year, yet the plant seems to do fine despite the disease's annual arrival. Certainly it would seem to be a Category 1 problem. However, what if you are running a garden center? The fact that powdery mildew is causing little damage to plant health is cold solace when no one wants to buy your product. As a result, you need to treat the situation as a Category 3 problem and use fungicide sprays for you to survive and thrive. Otherwise, you could simply feature a mildew-resistant cultivar such as *S. patula* 'Miss Kim'.

A company's pest and disease management capabilities can play a significant role in the placement of plant problems into categories. Remember that the definition of a Category 2 problem is "the plant will not thrive or survive with the application of the best available intervention efforts." The operative words here are "best available." What if a company simply lacks the necessary tools, such as spray equipment for tall trees, to successfully treat a particular problem? Not all hospital emergency rooms are equipped the

same way, and some patients live or die based on the availability of lifesaving equipment.

These examples illustrate that treeage is not a static process. It should be a dynamic, ever developing work in progress guided by a company's needs, aspirations and capabilities. While it may seem desirable to reduce treeage to a simple list of problems neatly classified into categories, this would diminish the overarching goal. Treeage empowers companies to combine their management capabilities with pest and disease information to develop their own decision-making plans.

This brings us to the most creative way to use treeage. The concept should be a topic of planning meetings. Staff members should think through what their Category 1, 2 and 3 problems are. Once this is established, employees can plan how they will institute Category 3 interventions and/or how they will limit advertising claims and customer expectations for controlling Category 2 problems.

Staff can also develop better communication methods with customers to put Category 1 problems in the proper perspective.

Treeage will help a landscape management company become more focused in all aspects of doing business—how a planning meeting is conducted, how resources are directed and how communication with customers is handled. Indeed, treeage can help a company perform triage on itself! In this context, treeage will move from a simple pest and disease management tool to a framework for business success. 🌿

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Photo by Dick Rideout, WDNR

After spending most of its life in an immobile condition, pine needle scale produces mobile, rusty red crawlers.

Stevens Point *continued from page 2*

Along with the master gardeners' assistance, the forestry department is fortunate to have the nationally recognized urban forestry program at UWSP to tap for current technical information and service. Many of the urban forestry classes conduct their lab work in the city's parks, and student volunteers have assisted with special projects such as planting arborvitae around Goerke Field and spraying gypsy moth egg masses on cemetery property.

The recent discovery of gypsy moths in a small section of town is a concern and challenge that Ernster is actively working on with the DNR and Department of Agriculture. The city has been proactive by reaching residents through informational mailings and by maintaining a web site showing a map where the moths are present, pictures of egg masses and caterpillars and links to other gypsy moth sites.

Another partnership is being established with Mid-State Technical College and their recently developed urban forestry program in Wisconsin Rapids. This spring, students in the Tree Climbing, Pruning and Removal Techniques course will be able to sharpen their skills in the city's parks by helping the city plant some of the 200 balled-and-burlapped trees the city plants annually.

Even with all these new programs and partnerships the forestry department hasn't lost site of its origin, which was to manage Dutch elm disease (DED). Annually, the forestry department surveys the entire city, suspect trees are sampled, diseased trees are then pruned, treated or removed. This has allowed a substantial population of American elms to remain.

The city prunes about 1,700 trees each year. Young

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Community Tree Profile:

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Pagoda Dogwood

(*Cornus alternifolia*)

by Laura G. Jull
Dept. of Horticulture
University of Wisconsin-Madison



The tiered form of the pagoda dogwood

Native To: Eastern US into southeastern Canada as an understory tree in open woodlands, along forests edges or streams.

Mature Height: 15' to 20'

Spread: 15' to 20'

Form: Small tree to large shrub with layered, horizontal branches low to the ground; flat-topped, tiered looking

Growth Rate: Slow

Foliage: Leaves are simple, alternate (can appear opposite on very short twigs). Leaves can appear whorled or clustered at the end of branches. They are elliptic to egg-shaped, 2" to 5" long, with entire margins and a long, pointed tip; whitish underneath the leaves. All dogwood leaves have distinct falcate (sickle shaped) veins that curve upward along the margins.

Buds and Stems: Flower buds are terminal, 1/4" long, pointed, smooth at base becoming pubescent at the tip, and valvate (duckbill shaped). Buds contain 2 or 3 reddish-brown scales that are not tightly pressed against the bud. Vegetative buds are very small and valvate. New twigs are shiny, olive-green while older stems are purplish-green to dark reddish-brown on top of branches; smooth, shiny, and containing a white pith.

Fall Color: Maroon to reddish-purple, occurs early in fall

Flowers: Showy, small, creamy-white, fragrant flowers in June; borne on tips of branches in 2"-to 4"-diameter, flat-topped, upright cymes.

Fruit: Showy, glossy, 1/4"-to 1/3"-diameter, dark bluish-black drupe; in clusters at the tips of branches, in mid-summer; edible

but very bitter; fruit quickly devoured by birds and small mammals. Each fruit is borne on persistent, pinkish-red pedicels (stalks).

Bark: Thin, smooth, reddish-brown to gray, becoming broken into irregular, narrow ridges with age.

Site Requirements: Prefers moist, slightly acidic, cool, well-drained soils, high in organic matter, with mulch or leaf litter accumulated (2" to 4") over the soil. Prefers partial shade to full sun, particularly on a north or east side of a building where direct sun hits it for only part of the day. Does not tolerate drought, pollution, heat, or compacted soils.

Hardiness Zone: 3a to 7a

Insect & Disease Problems: Twig blight, Botryosphaeria canker, and golden canker are serious problems on heat- and drought-stressed trees and can kill the tree over time. Septoria and Cercospora leaf spots can occur on the leaves.

Suggested Applications: Pagoda dogwood makes a wonderful small specimen tree in shrub borders, near patios, small areas or in containers. Also can be used for naturalizing.

Limitations: Pagoda dogwood has low branches, which will require pruning for pedestrian clearance. Not suited as a street tree as prone to canker if under heat or drought stress. Will require irrigation during summer drought periods.

Comments: Pagoda dogwood is an excellent small, ornamental tree for landscaping. It can be grown either as a single or multi-stemmed specimen. The flowers are fragrant and showy, followed by fruit that attracts wildlife, especially birds. The distinct, tiered, horizontal branches along the main trunk give the appearance of a pagoda and can look beautiful in the winter landscape.

Common Cultivars or Selections:

'Argentea': variegated leaves with white margins and green center; leaves tend to burn in full sun or excessive heat; shrubby form, 15' tall.

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Photos by Laura Jull,
UW-Madison

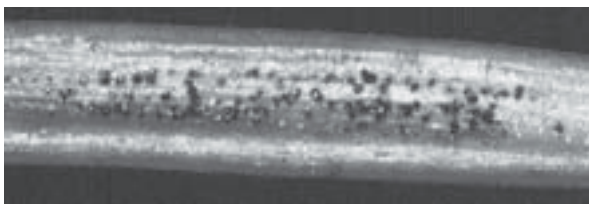


Pagoda dogwood fruit is a black drupe

Rhizosphaera Needlecast

by Glen R. Stanosz, Ph.D., Associate Professor
Departments of Plant Pathology and Forest Ecology and
Management
University of Wisconsin–Madison

Needlecast diseases are caused by a group of fungi that invade and cause the loss or “casting” of conifer needles. *Rhizosphaera* needlecast can be a particularly damaging disease of conifers in Wisconsin, especially blue Colorado spruce (*Picea pungens*). Needle loss renders trees unattractive and eventually can affect the growth and long-term health of trees. Aspects of the *Rhizosphaera* needlecast disease cycle can make it a particularly difficult disease to manage. Cultural practices and judiciously applied protective chemicals, however, can significantly reduce the damage of this disease to conifers in Wisconsin’s urban landscapes.



Tiny, black, spherical fruiting bodies of *Rhizosphaera kalkhoffii* often appear in rows on needles, either before or after they are “cast” from trees.

Photo by G. Stanosz, UW–Madison

The fungus that causes *Rhizosphaera* needlecast, *Rhizosphaera kalkhoffii*, is found throughout Wisconsin. This fungus infects needles on expanding shoots in the spring and early summer. After three to four months, some needles may begin to turn purple to brown, although discoloration is often delayed until the year after infection. Needle browning and casting of needles intensifies during the following summer and fall, 12 to 15 months after infection. Tiny, black, spherical fruiting bodies that bear the spores of the fungus emerge in abundance through the lines of stomates on needles, either while still on the tree or after needles are cast to the ground. Severely affected trees have very thin crowns, often bearing little foliage except for the most recently produced, current-year needles on the tips of the shoots. Lack of foliage slows growth and leads to death of branches and sometimes entire trees.

Rhizosphaera needlecast affects a variety of spruces, true firs, Douglas-fir and even pines. Although blue Colorado spruce is the most susceptible host and is often severely damaged in Wisconsin, white spruce

(*Picea glauca*) is less susceptible, and Norway spruce (*Picea abies*) is relatively resistant. Thus, the latter two species might be chosen for areas where this disease has been a problem but spruces are still desired. In addition, pines are not often severely damaged in Wisconsin. Little information is available regarding resistance among true firs or Douglas-fir.

Cultural practices can reduce damage from *Rhizosphaera* needlecast and enhance the ability of trees to tolerate damage when it occurs. Planting stock should be carefully inspected so that the pathogen is not brought into the landscape from infested nurseries. Because moisture on needle surfaces is necessary for spore germination and infection, care should be taken that irrigation or sprinkling does not result in prolonged wetting of foliage. Adequate spacing between trees in nurseries and landscape plantings will allow good air circula-



Loss of needles due to *Rhizosphaera* needlecast renders conifers unattractive and can eventually lead to their death.

Photo by G. Stanosz, UW–Madison

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What Damaged This Tree?

by Kim Sebastian
DNR Southeast Region



Photo by Cliff Englert, City of Janesville

Turn to page 15 to find out...

Setting Up a Fund-raising Task Force

Part 2

This is the second of a two-part article on fund-raising, adapted from *Fundraising for Grassroots Groups* by Ken Wyman. This book, in its entirety, may be downloaded free of charge at: <http://www.GreenAbility.org>. Ken Wyman is an international trainer and consultant on fund-raising and volunteering, with special interest in environmental causes.

The first part of this series dealt with setting up a task force for fund-raising and identifying key positions, along with the roles and responsibilities of those positions. It also spoke of taking a human resources inventory of current volunteers, creating job descriptions for the positions and recruiting for specific attributes. This part will deal with what the volunteer recruiters should know about the organization seeking funds, along with expectations of the volunteers being recruited to perform the desired duties. Stages of planning a fund-raising campaign and recognition of fund-raisers and donors round out part two.

Before the recruiter begins recruiting they should have answers to the following questions:

- Are the goals of the program clear?
- Are there clear, concise job descriptions stating what is and is not expected of the volunteers?
- What kind of training/orientation will be given to the new volunteers?
- Who will be the contact person for the volunteers once they come on board?
- What provision will be made for ongoing contact/support/problem-solving with volunteers?
- How many volunteers are really needed?
- How will the organization handle potential volunteers who won't fit into the program?
- What do you want to achieve in the initial interview?
- Does the organization's registration form supply all the necessary information for the volunteer group?
- Why does the volunteer want to volunteer in your program? What do they plan on getting out of this work—experience, knowledge, a new skill, new friendships, a sense of accomplishment?

- Will the organization's volunteer program meet their needs?
- Has the potential volunteer ever volunteered before? What kind of commitment are they willing to make?
- Are there provisions for keeping accurate record of name, address, phone number, emergency contact, schedules, work hours, skills they can learn or already have?

Stages of Planning a Campaign

Once the volunteers have been chosen, it is time to encourage *Team Feeling* and *Positive Attitudes* towards the fund-raising challenges that lay ahead. Point out the benefits of the fund-raising:

- opportunity to get more done
- greater community profile
- new volunteer opportunities
- a way to use existing staff and volunteer skill more efficiently
- develop a solid base of community support

Encourage positive attitudes in others by your own attitude. Make the fund-raising team the group to work with, the place to be, etc. A can-do attitude is contagious. It is rare, but the fund-raising team can have so much fun, and find it so rewarding that people actually compete to be chosen as members. Being selected a leader is not seen as a chore to be avoided, but as prestigious proof of your talent. At least one group has enough applicants to interview for top volunteer positions and choose the best. What a goal to shoot for!

People who are nervous about taking on new assignments will be reassured knowing that there is a process of orientation and training for volunteers. During this process, each volunteer should receive a *brief* written kit to cover all the important questions/he might have. Don't overdo it or it will never be read. Each should also attend a meeting, either in a group or one-on-one, to let them know about the team effort. A good orientation will:

- inform
- motivate
- establish goals
- outline process



Coming Events

October 27–30, 2002 — Janet Meakin Poor Research Symposium, Invasive Plants—Global Issues, Local Challenges, Chicago Botanic Garden, Congress Plaza Hotel, Chicago, IL. Contact www.chicagobotanic.org/symposia/jimpsymp.html

November 2002, date TBA — UWEX Landscape Workshop – Landscape Design with Native Plants, Madison, WI. Contact Mike Maddox at 608-224-3715 or mike.maddox@ces.uwex.edu

November 7–9, 2002 — National Arborist Association Tree Care Industry Expo, Midwest Express Center, Milwaukee, WI. Contact Carol Crossland at 603-314-5380 or www.natlarb.com/

- answer key questions of volunteers
- build a team feeling

Materials such as a brochure, annual report and fact sheets interpret the program to volunteers and prospective donors. This will show the volunteers that there are many resources available to help them and the organization in its quest for donations. Within this material you may want to provide information relating to the fund-raising goal and the benefits derived from its achievement. A personal story of people or a program helped through this funding, and easy methods to give, such as a business reply envelope, reply coupon or phone number, will increase the chance of positive responses.

Know your dollar figure and set an overall goal! How much money must the group/organization raise? This *has to be clear* or nobody will have a sense of the scope of the task.

How do you decide on the amount for the goal? Usually it is based upon the agency's plans. Fund-raising goals are the amount needed to enable the organization to do what it wants to do. Knowing what you want to do and how much it will cost is the first step to setting fund-raising goals.

Knowing how much you could raise is a factor in setting the goal, but not the only one. The need must be the driving force. Translate dollars to program benefits. Define the dollar amount in values that outsiders can understand. What can your agency achieve with that amount of money? How can it benefit the community? Donors want to know how their money will be used. Remember: people give to people.

Determine the best audience(s) for your fund-raising by looking at those your agency comes into contact with, serves or involves. Identify like-minded groups. Then consider the types of fund-raising you can initiate. Relate the donor goals to your groups and emphasize the similarities.

Evaluate your goals and strategy, and identify ways to improve next time. As your fund-raising activities unfold, find out what goes right and wrong. Record what people would do differently next time. At the end of the campaign, ask:

- Did we achieve the results we needed?
- Did we use the best strategies?
- How did people feel about their work?
- What improvements might be made next time?
- What were the unintended results (negative and positive)?
- How many hours of work did this actually take? Was it cost effective?
- What non-financial results did we achieve?

Recognizing Fund-raisers and Donors

Mail a receipt for income tax purposes to the donors within 48 hours of receiving the donation. Include a thank-you letter. Start at once to cultivate the donor for the next approach. Keep them up to date on the progress of the project in which they invested.

Here's how to make a volunteer feel good. Send a short letter to the volunteer, the volunteer's family (who put up with long absences), the volunteer's employer and the local newspaper. Give a volunteer:

- a private thank you
- a public thank you
- a holiday from volunteer work
- a tree planted in their name
- a gift certificate donated by a hotel, restaurant, golf course or craft shop

Give lots of awards to volunteers during the fund-raising campaign. Reward many people, not just the top performers that may have an unfair advantage. Awards may include:

- Best First-time Participant
- Most Improved
- Most Frequent Attendance
- Most Likely to Arrive First
- Most Persistent
- First to Receive a Donation

When should you reward volunteers? *During* the work. *After* the work. *Any time* goals are surpassed. And how much should you spend to thank volunteers? NOTHING! Or be sure it is donated and they realize it. Volunteers often resent seeing money needed for the work you do spent on recognition. ♣

November 7–9, 2002 — *7th Student Society of Arboriculture Conference*, Midwest Express Center, Milwaukee, WI. Contact Tim Walsh at 603-895-3710 or SSADirector@att.net

January 8–10, 2003 — *Minnesota Green Expo*, Minneapolis Convention Center, Minneapolis, MN. Contact Minnesota Turf and Grounds Foundation at 612-625-9234 or www.mtgf.org

January 26–28, 2003 — *Annual Urban Forestry Conference and WAA Annual Conference & Trade Show*, Regency Suites & KI Convention Center, Green Bay, WI. Contact Scott Nelson at 608-252-7186 or snelson@mge.com ♣

If there is a meeting, conference, workshop or other event you would like listed here, please contact Dick Rideout at 608-267-0843 with the information.

Dealing with Rabies

by Ricky Lien
DNR Urban Wildlife Specialist

The Wisconsin DNR is fortunate to have the services of a team of professionals within the Bureau of Wildlife Management whose sole function is to work on wildlife health issues. As you might imagine, in a year marked by two wildlife diseases that have garnered significant media and public attention, Chronic Wasting Disease and West Nile Virus, this Wildlife Health Team is being run ragged. I want to spend a little time talking about one wildlife disease that's been around for a long time—rabies—and I'll borrow liberally from some guidelines put out by our wildlife health team.

Rabies is a contagious viral disease that affects the nervous system. Rabies is almost always fatal once symptoms occur. All mammals, including humans, are susceptible to rabies. In Wisconsin, skunks and bats are the most commonly affected animals. Birds and reptiles are not susceptible to naturally acquired rabies and do not pose a risk of transmitting it to humans.

The DNR does not routinely test wild animals for rabies except when human or domestic animal exposure has occurred. The DNR/DHFS (Wisconsin Department of Health and Family Services) definition of human exposure from a wild carnivore or bat is:



- (1) a bite, or (2)
- having wet saliva (from a live or dead animal)
- contact a person's



broken skin or mucous membranes. The DNR/DHFS definition of domestic animal exposure from a wild carnivore or bat is: (1) a bite, (2) salivary contact as described above or when a domestic animal scavenges a wildlife carcass, or (3) close association (such as in a barn or other enclosed space) with a highly suspicious wild animal, especially a skunk. Suspicion is based on abnormal behavior or clinical signs of nervous system disease. Rabies is rare in small rodents such as squirrels or chipmunks, rabbits and opossum; however, bites from large rodents such as woodchucks, beaver and muskrats or raccoons should be considered possible exposure.

If the DNR receives a call about a possible interaction between a person or domestic animal and a wild animal that fits the above definitions of exposure, they will likely test the wild animal for rabies. The decision to test the wild animal will be made on a case-by-case basis. If you're involved with such a situation, please contact your local DNR office and the local wildlife biologist will contact the wildlife health team for case approval and submission instructions. It is important to have a complete field history when discussing case submission. If directed to, they can collect the wild animal safely and in such a way that the brain (needed for rabies testing) is not damaged.

Additionally, if you're dealing with a situation in which there has possibly been human exposure, the affected person should contact their physician AND the local Health Department/Wisconsin Department of Health and Family Services. ❁

Stevens Point *continued from page 5*

trees are on a short rotation to establish proper structure, then they are advanced to a longer rotation for maintenance pruning. The city also removes about 50 street trees per year due to disease or structural concerns. The wood resulting from these practices does not go to waste. All the chips are put under trees, around shrubs or on their extensive trail system. They've even been used to mass mulch parts of popular Bukolt Park, stemming the decline of trees suffering from soil compaction caused by overuse. The logs are cut into lumber for building projects in the parks and what is left is cut for firewood.

When asked where the forestry program should be more active, Ernster immediately cited public

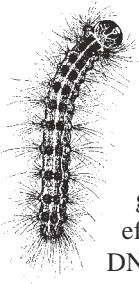
relations, including newspaper articles, presentations and an up-to-date web site. Ernster wants to provide the information citizens desire and need to better care for their trees. His recent activities include informational door hangers placed on houses where extensive road construction was taking place and information packets mailed to residents near the gypsy moth infestation. These efforts not only increase citizen understanding, but will help garner support for the program during these uncertain budgetary times.

"I'm fortunate to have a great staff along with strong backing from the mayor, city council, down through the other department heads," said Ernster. In addition, the community as a whole is in tune and responsive to their efforts which will only help this forward-thinking forestry department for years to come. ❁

Start Managing Next Year's Gypsy Moths This Fall

by John Kyhl

DNR Southeast Regional Gypsy Moth Suppression
Coordinator and Forest Pest Specialist

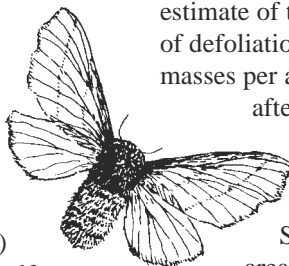


At long last the hassle and nuisance of the gypsy moth caterpillars and moths are gone for the year. Late fall and winter can be a good time to lessen gypsy moth problems next year by targeting egg masses. This article will guide you through egg mass control efforts and give you background on DNR's Gypsy Moth Suppression program.

Let's start with egg mass identification. Gypsy moths spend about nine months in the egg stage, from late July or August until the following May. Fortunately, gypsy moth egg masses are very recognizable (see photo). They can be up to 1.5 inches long and 1 inch wide (though smaller ones are common), are often teardrop-shaped, hairy and look like tan or yellow felt. Each female deposits one egg mass containing up to 1000 eggs. Egg masses can be found in many locations. In forests, they are found primarily on the trunk and the underside of tree branches. In residential areas, egg masses are found on almost everything—houses, gutters, firewood piles, birdbaths, lawn furniture and vehicles.

If you were actively managing gypsy moths in June and July, you can now take a rest until October and let a natural enemy of gypsy moth do the work! Starting in late August and remaining active until the first few frosts, *Ooencyrtus kuvanae*, a tiny parasitic wasp, attacks gypsy moth eggs. These wasps lay their eggs inside gypsy moth eggs. The wasp eggs hatch and the larvae feed on the gypsy moth eggs, destroying them. These tiny wasps can destroy up to 40 percent of gypsy moth eggs. It's best to leave the egg masses alone until the wasps are finished feeding in mid-October so that they can build up their population and go on to kill eggs where you can't reach them. After the first few frosts (perhaps as early as mid-October) you can start attacking the egg masses yourself.

Destroying egg masses can really pay off since each one that is destroyed can prevent the feeding of several hundred caterpillars. A single caterpillar can consume nearly a square yard of foliage in its lifetime, so eliminating one egg mass can save a lot of leaves. You can destroy egg masses by spraying them with Golden Pest Spray Oil (formerly named Golden Natur'l Oil) or by scraping them off and killing them. Spraying the egg masses is preferred if you plan on participating in a suppression program (see below), as it leaves the egg masses in place to be counted by the program's surveyors. Golden Pest



Spray Oil should be mixed according to label directions, then, using a spray bottle, sprayed onto the egg mass until it is soaked. Add blue food coloring to the mixture so that you can identify which ones you have treated. If you scrape off egg masses, use a knife to scrape all of the eggs into a bag or a jar. Eggs can be killed by microwaving them on high for two minutes, or by soaking them in soapy water for two days before discarding them in the trash. Don't just scrape egg masses onto the ground or try to crush them with your shoe as many will survive to hatch next spring.

Fall is also the time to prepare applications for the DNR Gypsy Moth Suppression program. This program is available in the generally infested part of the state (approximately the eastern third of Wisconsin) and is intended to help communities protect tree health by using aerial application of Bt (a microbial, caterpillar-specific insecticide) to limit or prevent defoliation. Sprays are done only at the request of communities that apply for the grant and applications must be made through their county suppression coordinator. Grant applications, application instructions and other program specifics are available at the DNR gypsy moth suppression web site at www.dnr.state.wi.us/org/land/forestry/fh/GM/index.htm. DNR will also mail applications to communities and counties during the fall. Suppression program staff will conduct training sessions on applying for the grant in late September. Applications are due at the beginning of December.

One important component of the application is an estimate of the gypsy moth population size and level of defoliation based on a count of the number of egg masses per acre. The best time to conduct a survey is after leaves have fallen. To conduct a survey you will need an 18-foot, 6-inch length of string attached to a stake, binoculars, note pad, pencil and a map of the area. Select a patch of trees that is typical of the area you are concerned about. Set the stake and use the string to create a circle with a radius of 18 feet, 6 inches. This circle has an area of 1/40 of an acre. Search everywhere within the circle for all egg masses. Use the binoculars to look for egg masses high on the trees, especially the undersides of larger branches. Also check all items on the ground such as picnic tables and woodpiles. Record the number of egg masses and the location of the survey circle. To convert the number of egg masses per survey circle to egg masses per acre, multiply by 40. You should survey several circles to get an accurate estimate of the infestation throughout the area. Space your survey

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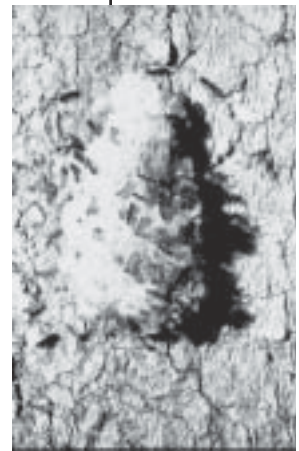


Photo by USDA Forest Service

A gypsy moth egg mass with emerging larvae

continued on page 14



Community Open Space Partnership

by Cindy Casey
DNR West Central Region

What would you call an action oriented, broad-based coalition of individuals, nonprofits, businesses, institutions and agencies seeking to improve the biological, social and economic health of urban and growing communities through innovative park and open space systems and through land use policy reform? You would call this new organization Wisconsin's *Community Open Space Partnership*!

Launched in October 2001 at a regional summit of the Urban Open Space Foundation, COSP was formed to effect change through local action and advocacy. Partnership principles are centered on a strong regional and local vision, creative planning and design, vibrant neighborhoods and communities, and long-term commitment. Goals include shaping an open space agenda for the 21st century and advocating for change in established land use policies and institutions. Specifically, the partnership aims to employ concepts of good urban design and sound stewardship, and integrate a sufficient amount of parks, natural areas and other vital open spaces in the built environment to:

- improve the health of the natural environment
- spur neighborhood reinvestment
- offer families real alternatives to ex-urban growth
- provide youth with recreational alternatives to crime and drugs
- promote multigenerational experiences
- provide educational opportunities to make nature relevant to city residents
- address issues of environmental justice
- celebrate cultural heritage and diversity

Another major focus of COSP's efforts is supporting and promoting innovative land use projects. The organization supports local action by sharing knowledge, skills and other information at its Great Lakes Virtual Resource Center, www.ouopenspaces.com. The Virtual Resource Center is a clearinghouse for sharing not only members' knowledge and skills, but also funding opportunities and other external resources, project successes, and relevant news and events. In its Portfolio of Open Places, the web site currently features several projects in which old rail yards, brownfields, former industrial sites and similar property have been converted into community open space. With support from the Urban Open Space Foundation and other funding sources, these grassroots projects have successfully combined the

energy and talents of various broad-based community resources and illustrate perfectly COSP's vision.

The Community Open Space Partnership is a membership organization. Members can:

- add their voices to a community of people shaping an open space agenda
- access and bring network resources to their locale
- access people, projects, skills and funding opportunities through the Virtual Resource Center
- network with—and gain support of—others in creating a open-space vision in their own communities
- receive advance notice and member discounts on partnership workshops, events, publications and special features of the Virtual Resource Center

For more information, visit the COSP web site at www.ouopenspaces.com.✱

Rhizosphaera Needlecast

continued from page 7

tion and promote more rapid drying of needle surfaces. Finally, judicious fertilization and provision of water during dry periods will allow affected trees to better tolerate the effects of defoliation and help them recover by enhancing production of needles in successive years.

Application of fungicidal sprays can help prevent infection of needles by *Rhizosphaera kalkhoffii*. Materials containing chlorothalonil have been effective and are available for nursery and landscape use. Application must begin after bud break and continue every two weeks until needles are fully expanded (mid- to late April until mid- to late July). Care must be taken to ensure that all expanding shoot tips throughout the entire tree are thoroughly covered with fungicide. Treatment for two or more years may be required to break the disease cycle and restore trees to an attractive and healthy condition.

(Mention of particular materials does not constitute endorsement. Always read pesticide labels and apply in accordance with label directions.)✱

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The Idea Exchange...

compiled by John Van Ells
DNR Southeast Region

Utilizing Municipal Trees: Ideas from Across the Country

The USDA Forest Service recently announced the availability of a new 90-page booklet. *Utilizing Municipal Trees: Ideas from Across the Country* provides inspiring stories from entrepreneurs, tree-care firms, city foresters and sawmill operators that see opportunities for making fine furniture, unique woodcrafts and other lumber products from otherwise wasted urban trees.

Demand for wood products is increasing and area landfills are filling up fast. Be a part of the solution! Urban trees removed due to old age, hazardous conditions and poor health provide an untapped resource for wood products. Learn how 16 communi-

ties, organizations and individuals conserve natural resources, promote wood products and in many cases generate revenue from using urban wood waste. *Info: USDA Forest Service, 1992 Folwell Avenue, St. Paul, MN 55108; 651-649-5262; www.na.fs.fed.us/spfo/pubs/misc/umt/.*

An Online Urban Forestry Speakers Bureau

The USDA Forest Service (Southern Center for Urban Forestry Research and Information) and the Southern Regional extension forester have developed a *searchable online Urban Forestry Speakers Bureau* for finding that special speaker you need for a conference, workshop or other educational program. We encourage you to visit the speakers bureau web site at <http://speakers.urbanforestrysouth.org> and add your name to the database so we can develop a comprehensive list of speakers. *Info: Terrence Campbell at tcampbell@fs.fed.us or 706-559-4244.* ☘

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Does your community or organization have an idea, project or information that may be beneficial to others? Please let your regional urban forestry coordinator know. We will print as many of these as we can. If you see ideas you like here, give the contact person a call. They may be able to help you in your urban forestry efforts.

Research Notes:

Transplanting Success of Balled-and-Burlapped vs. Bare-Root Trees in the Urban Landscape

by Michelle J. Buckstrup and
Nina L. Bassuk of Cornell University

Research Notes is a new column for our newsletter. In it we'll provide synopses of recently published papers that we feel are particularly relevant to important issues in Wisconsin. We'll always list the original authors and include the citation so you can check out the full paper if you wish to delve into more detail. - Editor

In this study, 1.5-inch balled-and-burlapped (B&B) and bare-root (BR) hackberry, American hophornbeam and swamp white oak were paired and planted on similar sites in the city of Ithaca, New York. Half of the trees were planted in the fall, half in the spring. Bare-root trees received hydrogel root dip at the nursery to prevent root desiccation. Survival rates were excellent for all treatment combinations except spring-planted BR hophornbeam, which experienced 50 percent mortality. Growth measurements were taken in August of the first and second growing seasons.

First-year results showed many significant differences between treatments, but by the end of the second growing season very few significant differences in growth responses persisted. During the first growing season, fall-planted BR hackberry grew better than fall-planted B&B hackberry. Growth on spring-planted hackberry was better on B&B trees. Fall-planted hophornbeam responded equally well B&B

and BR, but spring-planted hophornbeam grew better B&B. Swamp white oak B&B grew somewhat better than BR, regardless of when planted. Both B&B and BR swamp white oak planted in fall grew somewhat better than trees planted in spring.

This study suggests that BR stock can be just as viable as B&B stock for species that tolerate being moved BR and are: of relatively small caliper, root dipped and given proper early maintenance after planting (mulching and watering). This has many time- and money-saving implications for municipal forestry programs. BR trees are less expensive than B&B trees. BR trees are much lighter, many more can fit on the bed of a truck, they are cheaper to ship and planting costs are less. The cost of planting a B&B tree, by contrast, is markedly higher because the weight of the ball requires machinery to load the tree on the truck, unload it and get it in the ground. Because of the machinery used to harvest them, BR trees have about 200 percent more roots than B&B trees. Furthermore, seeing the root collar on the BR trees encourages proper planting depth, and soil interface problems are avoided. Given all these advantages and if BR trees can be moved with just as much success as B&B trees, municipalities should consider using bare-root stock for future plantings. ☘

Reference: Journal of Arboriculture 26(6): 298-308

Council News:**Council to Sponsor
2003 TCUSA Event**

The Wisconsin Urban Forestry Council and the Wisconsin DNR will be sponsoring the second Tree City USA recognition celebration on March 27, 2003 at the Monona Terrace Convention Center in Madison. Mayors and community foresters of Wisconsin's Tree City USA communities will be invited to this

gala event featuring nationally known keynote speakers, award presentations, a reception and banquet, and something new—educational seminars.

Responding to evaluations from our first TCUSA banquet, the celebration planning team is developing afternoon seminars that will address practical solutions to the most pressing problems our TCUSA communities face.

To make sure that everyone in the state is aware of what our TCUSA communities have done to promote economic, environmental and social quality of life, each community's local news media will receive photographs of the award presentations and a press release announcing the accomplishments of Wisconsin's Tree Cities.

Because the celebration and award presentation will be a full month before Arbor Day, it is important for communities to submit their TCUSA and Growth Award applications as early as possible. The official deadline is December 31, 2002, but sooner would be better since the DNR has to review the applications and forward them to the National Arbor Day Foundation which then has to approve over 2500 awards nationally, produce the award materials and return them to us in time for the ceremony.

Wisconsin ranks third in the nation with 139 communities that have achieved Tree City USA status. We'd like to do even better! If you are a community interested in caring for its trees, please contact your regional urban forestry coordinator listed on page 16 to see how you can qualify for Tree City USA. 🌳

Photo by WDNR



The 2000 Tree City USA banquet drew over 350 people representing 93 Tree Cities.

**Emerald Ash Borer
in Michigan**

by Linda Williams, Regional Pest and Disease Specialist
DNR Northeast Region

Emerald ash borer (*Agrilus planipennis*), an exotic insect from Asia, was found in five counties in Michigan's Lower Peninsula. It seems to be able to attack and kill healthy ash trees of any age. Emerald ash borer is a flatheaded or metallic woodborer. The larvae bore under the bark of trees, causing girdling and weakening of the tree. You may see the D-shaped exit holes that the adults make as they exit the tree. There are no other pests that do this kind of damage to ash trees in this area, so if you see this type of injury, please notify your regional DNR forest pest specialist. Visit the USDA Forest Service web page, www.na.fs.fed.us/spfo/eab/index.html for some good pictures and information on what to look for. There is also lots of good information at the Michigan State University site, www.msue.msu.edu/reg_se/roberts/ash/index.html, where you can see pictures of declining trees as well as pictures of the insect itself. 🌳

Managing Next Year's Gypsy Moths

continued from page 11

circles at least 150 feet apart. Calculate the average number of egg masses you found in each of your survey circles. Examine your map to see if there is any pattern to the number of egg masses found. If the number of egg masses increases in one direction, you may want to take more surveys in that direction to determine the extent of the land that could be damaged by gypsy moth next summer. Use this information as part of the suppression grant application and to predict defoliation and nuisance in your area. An average of greater than 13 egg masses per survey circle in a residential area or 25 per circle in a woodlot or forest indicates a high likelihood of gypsy moth defoliation.

For more information on gypsy moth management, the suppression grant program, or for assistance with the grant application, contact the DNR regional gypsy moth suppression coordinator near you: Bill McNee in Green Bay (920-492-5930); Mark Guthmiller in Madison (608-275-3223); or John Kyhl in Milwaukee (414-263-8744). 🌳

Urban Forestry Resources:

compiled by Cindy Casey
DNR West Central Region

Publications and Web sites

TreeLink

This ever-expanding site has a wealth of urban forestry information. Some of the more recent additions include a grant writing tutorial, volunteer matching service, list of post-secondary institutions with urban forestry curricula, an on-line quarterly publication called *Wood Notes*, and additional links to research and resources. Check out TreeLink at www.treelink.org.

Storms over the Urban Forest, 2nd ed., by L.L. Burban and J.W. Andresen, 1994.

This manual is designed to help communities plan for, and respond to, natural disasters as they pertain to protection and recovery of woody vegetation. The guide draws on insights from past experience with tornadoes, floods, hurricanes and forest fires. Planning models for small, medium and large communities are proposed. The guide also contains recommendations for working with disaster relief organizations and for community greening. Published by USDA Forest Service, Northeastern Area State and Private Forestry, St. Paul, MN. 152p. The publication is free of charge. Single copies may be requested by contacting USDA Forest Service, 1992 Folwell Ave., St. Paul, MN 55108; 651-649-5262.✉

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Habitat Restoration Grants Fund Grassroots Conservation Efforts

MADISON — Nine Wisconsin conservation groups working to restore and protect native areas in the state will be awarded almost \$100,000 in funds through a relatively new program designed to assist small grassroots groups that would not otherwise be eligible for such funding.

The Habitat Restoration grant program was started in 2000 by the Natural Resources Foundation and the DNR to help small conservation groups that don't have tax-exempt, 501(c)(3) nonprofit status undertake long-term habitat restoration projects. The funded projects involve restoration of prairie communities or shoreline or aquatic habitat improvements.

DNR staff work with grant recipients to accomplish their conservation goals and in turn, the agency receives additional labor to accomplish management goals that would be difficult or impossible otherwise, explains Shahla Werner, NRF grants coordinator. "These grants offer an excellent way for the DNR to promote and establish partnerships at the local level," she notes.

The Habitat Restoration grant program supports projects that:

- restore native habitats, especially prairie, oak savanna, riparian areas, stream buffers, rivers, lakes or wetlands
- benefit rare, threatened or endangered species
- restore a removed dam site
- complement other adjacent conservation projects
- support existing conservation goals and objectives
- provide opportunities for education and outdoor recreation (although educational supplies are not funded by the program)

Grants fund up to 50 percent of total project costs through awards ranging from \$2,500 to \$20,000. To be eligible for a habitat restoration grant, a conservation group must have Articles of Incorporation and have as one of its purposes the protection, enhancement or restoration of the state's natural resources for the benefit of the public. This year's application is due at the NRF office by December 1, 2002.

Interested clubs may request a Habitat Restoration grant application from NRF, or download one from their web site at www.nrfwis.org/habrest/habrest.htm. Questions about the program may be directed to Shahla Werner, NRF grants coordinator, at 608-266-1430 or Shahla.Werner@dnr.state.wi.us or Laura Guyer, DNR community financial assistance coordinator at 608-266-5891.✉

From page 7.

What Damaged this Tree?

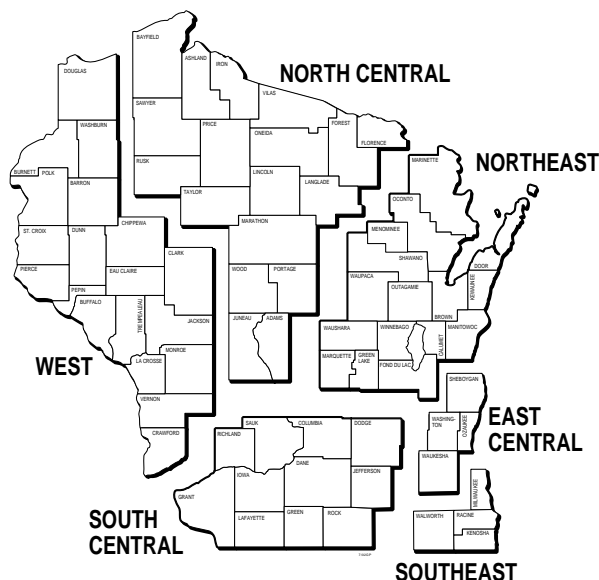
Answer:

The "tree experts" trying to prune and cable this tree would have benefited from reviewing the latest ISA Best Management Practices series including "Tree Support Systems and Pruning." These companion publications to the ANSI A300 standards were developed to serve as the how-to guide for cabling, bracing, guying and pruning trees.

After the cabling failed, the tree was just bolted together further down the trunk, creating a rigid fulcrum point for future failure.✉

Do you have pictures of tree damage others ought to know about? Send them to Kim Sebastian (address on page 16) and we'll print them here!

Wisconsin DNR Urban and Community Forestry Contacts



World Wide Web Site: www.dnr.state.wi.us/org/land/forestry/uf/

West

Cindy Casey
Regional Urban Forestry Coord.
1300 West Clairmont Ave.
Box 4001
Eau Claire, WI 54702
Phone: (715) 839-1606
Fax: (715) 839-6076
e-mail: [Cynthia.Casey-
Widstrand@dnr.state.wi.us](mailto:Cynthia.Casey-Widstrand@dnr.state.wi.us)

North Central

Don Kissinger
Regional Urban Forestry Coord.
5301 Rib Mountain Drive
Wausau, WI 54401
Phone: (715) 359-5793
Fax: (715) 355-5253
e-mail: Don.Kissinger@dnr.state.wi.us

South Central

Nathan Eisner
Regional Urban Forestry Assist.
3911 Fish Hatchery Road
Fitchburg, WI 53711
Phone: (608) 275-3227
Fax: (608) 275-3236
e-mail: Nathan.Eisner@dnr.state.wi.us

State Coordinator

Dick Rideout
State Urban Forestry Coord.
101 S Webster St
PO Box 7921
Madison WI 53707
Phone: (608) 267-0843
Fax: (608) 266-8576
e-mail: Richard.Rideout@dnr.state.wi.us



Northeast

Tracy Salisbury
Regional Urban Forestry Coord.
1125 N. Military Ave.
P.O. Box 10448
Green Bay, WI 54307
Phone: (920) 492-5950
Fax: (920) 492-5913
e-mail: Tracy.Salisbury@dnr.state.wi.us

East Central

John Van Ells
Regional Urban Forestry Coord.
Pike Lake State Park
3544 Kettle Moraine Road
Hartford, WI 53027
Phone: (262) 670-3405
Fax: (262) 670-3411
e-mail: John.VanElls@dnr.state.wi.us

Southeast

Kim Sebastian
Regional Urban Forestry Coord.
2300 N. Martin Luther King Jr. Dr.
Milwaukee, WI 53212
Phone: (414) 263-8602
Fax: (414) 263-8661
e-mail: Kim.Sebastian@dnr.state.wi.us



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